

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended) A The circuit board (30) having at least one electrical conduction level (EL) for relaying electrical signals and/or currents as well as at least one optical conduction level (OL) for relaying optical signals, said conduction levels (EL, OL) being interconnected and arranged in a stack one above the other within the circuit board, characterized in that the optical conduction level (OL) as a conducting element comprises at least one thin glass layer (11, 17) in the form of a prefabricated thin glass sheet made of a borosilicate glass and having a thickness of less than or equal to 1.1 mm.

Claim 2 (currently amended) A The circuit board according to claim 1, characterized in that the optical conduction level (OL) is formed by an optical sandwich (15; 15.1 ,..., 15.3) comprising, in addition to the minimum of one thin glass layer (11, 17), at least one carrier plate (10, 16) which is joined to the minimum of one thin glass layer (11, 17) over the area.

Claim 3 (currently amended) A The circuit board according to claim 2, characterized in that the optical sandwich (15.1) comprises at least two carrier plate (10, 16) with a minimum of one thin glass layer (11) arranged between them.

Claim 4 (currently amended) A The circuit board according to claim 2, characterized in that the optical sandwich (15.2, 15.3) comprises at least two thin glass layers (11, 17) which are joined over the area to the minimum of one carrier plate (10).

Claim 5 (currently amended) A The circuit board according to claim 4, characterized in that the minimum of two glass layer (11, 17) are joined together over the area and are arranged on one side of the minimum of one carrier plate (10).

Claim 6 (currently amended) A The circuit board according to claim 4, characterized in that the minimum of two glass layers (11, 17) are arranged on opposite sides of the minimum of one carrier plate (10).

Claim 7 (currently amended) A The circuit board according to claim 2, characterized in that the carrier plate (10, 16) are each made of an electrically insulating material which is used as the base material for the production of electric circuit boards, ~~preferably an Aramid reinforced resin.~~

Claim 8 (currently amended) A The circuit board according to claim 7 ~~4~~, characterized in that said carrier plates (10, 16) are each made of an Aramide reinforced resin the thin glass layers (11, 17) have a thickness of less than or equal to 1.1 mm and are made of a borosilicate glass.

Claim 9 (currently amended) A The circuit board according to claim 1, characterized in that the thin glass layers (11, 17) and the carrier plates (10, 16) are glued or pressed together.

Claim 10 (currently amended) A The circuit board according to claim 1, characterized in that at least individual layers of the thin glass layers (11, 17) are designed as continuous layers.

Claim 11 (currently amended) A The circuit board according to claim 1, characterized in that at least individual layers of the thin glass layers (11, 17) are structured so as to form individual optical conductors (13) within the layer, separated from one another by interspaces (12).

Claim 12 (currently amended) A The circuit board according to claim 11, characterized in that the exposed surfaces of the individual optical conductors (13) are covered with a reflective layer (29).

Claim 13 (currently amended) A The circuit board according to claim 11, characterized in that the interspaces (12) between the optical conductors (13) are filled with a filling material (14, 18).

Claim 14 (currently amended) A The circuit board according to claim 1, characterized in that coupling openings (26, 28) are provided for optical coupling of optically active elements

(25, 27) arranged on the top and or bottom sides of the circuit board (30), so that the concealed thin glass layer(s) layers (11, 17) or optical conductors (13) located in an optical conduction level (OL) are accessible from the outside through these coupling openings.

Claim 15 (currently amended) A method of producing a circuit board ~~according to claim 1, characterized in that in a first step comprising the steps of:~~

joining at least one thin glass layer (11, 17) comprising a prefabricated thin glass sheet made of a borosilicate glass and having a thickness of less than or equal to 1.1 mm ~~is~~ joined over the entire area to at least one carrier plate (10, 16) to form an optical sandwich (15; 15.1, ..., 15.3), and ~~in~~ a ~~second step, is connected~~

connecting the optical sandwich (15; 15.1, ..., 15.3) to the circuit board (30) ~~as to form~~ an optical conduction level (OL) having one or more electrical conduction levels (EL) in a stack arrangement.

Claim 16 (currently amended) A The method according to claim 15, characterized in that the thin glass layer (11, 17) and the carrier plate (10, 16) are joined together by pressing or gluing.

Claim 17 (currently amended) A The method according to claim 15, characterized in that the thin glass layer (11, 17) joined

to the carrier plate (10, 16) is structured between the first and second steps.

Claim 18 (currently amended) A The method according to claim 17, characterized in that the thin glass layer is removed in certain predetermined areas in order to structure the thin glass layer (11, 17) to form individual optical conductors (13) separated from one another by interspaces (12).

Claim 19 (currently amended) A The method according to claim 18, characterized in that the removal of the thin glass layer (11, 17) is accomplished by means of lasers or by mechanical or chemical methods.

Claim 20 (currently amended) A The method according to claim 17, characterized in that the free surface area of the structured thin glass layer (11) is coated with a reflective layer (29), preferably made of a metal, by vapour deposition, galvanic or chemical deposition.

Claim 21 (currently amended) A The method according to claim 18, characterized in that the interspaces (12) in the structured thin glass layer (11, 17) are filled with a filling material (14, 18) having a refractive index lower than the refractive index of the glass of the thin glass layer (11, 17).